IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An information processing apparatus ~~configured to serve~~ that serves as a reproduction instruction apparatus ~~configured to transmit~~ that transmits a data reproduction process request packet to a node connected to a network and ~~to execute~~ executes a [[data]] reproduction ~~process~~ of reproduction object data, based on return data, the information processing apparatus comprising:

a data transmission setting unit configured ~~to select one or more data transmission modes as a return data transmission mode, from a plurality of data transmission modes, and~~ to determine a transmission ~~bandwidth~~ percentage for each of ~~the selected~~ one or more data transmission modes according to a demand level of the reproduction object data;

a ~~packet generating unit~~ processor configured to set ~~the reproduction object data and~~ an address in accordance with the one or more data transmission modes, to set a judgment value to indicate to the node whether to execute a process to return the return data to the reproduction instruction apparatus ~~transmission bandwidth percentages determined by the data transmission setting unit~~, and to generate [[a]] the data reproduction process request packet, which stores the judgment value and a ~~storing~~ designation ~~data for~~ of the [[set]] reproduction object data ~~as a request statement~~; and

a network interface unit ~~configured to transmit~~ that transmits the data reproduction process request packet ~~generated by the packet generating unit~~ to the node at the address and receives the return data.

2. (Canceled)

3. (Currently Amended) The information processing apparatus according to claim 1, wherein the ~~data transmission setting unit is configured to select the~~ one or more data transmission modes ~~from~~ <u>include</u> a carousel transmission mode, a chaining transmission mode, a distributed cache mode, [[or]] <u>and</u> a client server mode.

4. (Currently Amended) The information processing apparatus according to claim [[1]] <u>3</u>, wherein<u>,</u>

<u>when the demand level of the reproduction object data is above a first predetermined threshold, the transmission percentage of the carousel transmission mode is 100%;</u>

<u>when the demand level of the reproduction object data is below the first predetermined threshold and above a second predetermined threshold, the transmission percentage of the carousel transmission mode is greater than 0% and less than 100%; and</u>

<u>when the demand level of the reproduction object data is below the second predetermined threshold and above a third predetermined threshold, a sum of the transmission percentage of the carousel transmission mode and the transmission percentage of the distributed cache mode is greater than 0% and less than 100%</u> ~~the data transmission setting unit is configured to use a correspondence between the demand level of the reproduction object data and band ratios for determining the transmission bandwidth percentage for each of the selected one or more data transmission modes, and to select the one or more data transmission modes based upon demand level information of the reproduction object data in accordance with the correspondence.~~

5. (Currently Amended) The information processing apparatus according to claim [[1]] <u>4</u>, wherein<u>, when the demand level of the reproduction object data is below the third predetermined threshold, the transmission percentage of the client server mode is 100%</u> ~~the~~

~~data transmission setting unit is configured to determine the transmission bandwidth~~

~~percentage for each of the selected one or more data transmission modes in accordance with a~~

~~value of a demand level x determined by demand information by adopting a function y =~~

~~Dn(x) (where ΣDn (x) = 1) set by the demand level x, a band percentage y for each of the~~

~~selected one or more data transmission modes, and an identification value n of each of the~~

~~data transmission modes, the demand information being related to the reproduction object~~

~~data~~.

6. (Previously Presented) The information processing apparatus according to claim

1, wherein the data transmission setting unit is configured to select a carousel transmission

mode as the return data transmission mode, when the demand level of the reproduction object

data is higher than a preset threshold value.

7. (Currently Amended) The information processing apparatus according to claim 1,

further comprising:

a data recovery processing unit configured to execute a deinterleave process and an

FEC decoding process [[for]] <u>on the return data to produce</u> the reproduction object data~~,~~

~~which is extracted from packets received from the node~~.

8. (Canceled)

9. (Currently Amended) The information processing apparatus according to claim

[[8]] <u>1</u>, wherein the [[rule]] judgment <u>value</u> ~~condition setting unit~~ is ~~configured to set~~ a

probability value ~~as a reproduction rule judgment condition statement for judging whether the~~

~~node executes the process satisfying the process request, and the packet generating unit is~~

4

~~configured to generate a packet storing the probability value as the reproduction rule~~

~~judgment condition statement~~.

10. (Currently Amended) [[The]] An information processing apparatus ~~according to~~

~~claim 8,~~ that serves as a reproduction instruction apparatus that transmits a data reproduction

process request packet to a node connected to a network and executes a reproduction of

reproduction object data, based on return data, the information processing apparatus

comprising:

a data transmission setting unit configured to select one or more data transmission

modes as a return data transmission mode, from a plurality of data transmission modes, and

to determine a transmission bandwidth percentage for each of the selected one or more data

transmission modes according to a demand level of the reproduction object data;

a packet generating unit configured to set the reproduction object data and an address

in accordance with transmission bandwidth percentages determined by the data transmission

setting unit, and to generate the data reproduction process request packet, which stores

designation data for the reproduction object data, as a request statement; and

a network interface unit configured to transmit the data reproduction process request

packet generated by the packet generating unit, wherein the reproduction object data stored at

the node is encoded data at an encoding rate of q/p converted from a number of blocks p of

divided data into a number of blocks q by FEC encoding, and the ~~rule judgment condition~~

~~setting~~ packet generating unit is configured to set a probability value ß indicating that the

node returns data at a return probability β, such that β is greater than $p / (q \times \alpha \times n)$, where

(1) α is a record probability designated by a record instruction apparatus connected to the

network, (2) q is [[the]] a number of encoded blocks q, (3) n is a number of network-

connected nodes, and (4) p is the number of blocks p.

11-13. (Canceled)

14. (Currently Amended) An information processing method for a reproduction instruction apparatus for transmitting a data reproduction process request packet to a node connected to a network and for executing a [[data]] reproduction process of reproduction object data, based on return data, the information processing method comprising:

selecting one or more data transmission modes as a return data transmission mode, from a plurality of data transmission modes;

determining a transmission bandwidth percentage for each of the selected one or more data transmission modes according to a demand level of the reproduction object data;

setting the reproduction object data and an address in accordance with the one or more data transmission modes bandwidth percentages determined in the determining step;

generating, with a processor of the reproduction instruction apparatus, the [[a]] data reproduction process request packet, which stores a judgment value and a storing designation data for of the [[set]] reproduction object data, the judgment value indicating to the node whether to execute a process to return the return data to the reproduction instruction apparatus as a request statement; and

transmitting the data reproduction process request packet generated by the generating step to the node at the address to receive the return data.

15. (Canceled)

16. (Currently Amended) The information processing method according to claim 14, wherein the selecting step includes selecting the one or more data transmission modes

[[from]] <u>include</u> a carousel transmission mode, a chaining transmission mode, a distributed

cache mode, [[or]] <u>and</u> a client server mode.

17. (Currently Amended) The information processing method according to claim

[[14]] <u>16</u>, wherein<u>,</u>

<u>when the demand level of the reproduction object data is above a first predetermined</u>

<u>threshold, the transmission percentage of the carousel transmission mode is 100%;</u>

<u>when the demand level of the reproduction object data is below the first</u>

<u>predetermined threshold and above a second predetermined threshold, the transmission</u>

<u>percentage of the carousel transmission mode is greater than 0% and less than 100%; and</u>

<u>when the demand level of the reproduction object data is below the second</u>

<u>predetermined threshold and above a third predetermined threshold, a sum of the</u>

<u>transmission percentage of the carousel transmission mode and the transmission percentage</u>

<u>of the distributed cache mode is greater than 0% and less than 100%</u> ~~the selecting step~~

~~includes selecting the one or more data transmission modes based upon demand level~~

~~information of the reproduction object data, and determining the transmission bandwidth~~

~~percentage for each of the selected one or more data transmission modes, in accordance with~~

~~a correspondence between the demand level of the reproduction object data and band ratios,~~

~~the correspondence indicating the transmission bandwidth percentage for each of the selected~~

~~one or more data transmission modes.~~

18. (Currently Amended) The information processing method according to claim

[[14]] <u>17</u>, wherein<u>, when the demand level of the reproduction object data is below the third</u>

<u>predetermined threshold, the transmission percentage of the client server mode is 100%</u> ~~the~~

~~selecting step includes determining the transmission bandwidth percentage for each of the~~

~~selected one or more data transmission modes in accordance with a value of a demand level x~~

~~determined by demand information by adopting a function y = Dn(x) (where ΣDn (x) = 1)~~

~~set by the demand level x, a band percentage y for each of the selected one or more data~~

~~transmission modes, and an identification value n of each of the data transmission modes, the~~

~~demand information being related to the reproduction object data.~~

19. (Currently Amended) The information processing method according to claim 14, wherein the ~~selecting step~~ determining includes selecting a carousel transmission mode as one of the ~~return~~ one or more data transmission ~~mode~~ modes when the demand level of the reproduction object data is higher than a preset threshold value.

20. (Currently Amended) The information processing method according to claim 14, further comprising:

executing a deinterleave process and an FEC decoding process [[for]] on the return data to produce the reproduction object data~~, which is extracted from packets received from the node~~.

21. (Canceled)

22. (Currently Amended) The information processing method according to claim [[21]] 14, wherein the ~~setting~~ judgment value ~~data step includes setting~~ is a probability value ~~as a reproduction rule judgment condition statement for judging whether the node executes the process satisfying the process request, and the setting the reproduction object data step includes generating a packet storing the probability value as the reproduction rule judgment condition statement~~.

23. (Currently Amended) [[The]] An information processing method ~~according to~~ ~~claim 21,~~ for a reproduction instruction apparatus for transmitting a data reproduction process request packet to a node connected to a network and for executing a reproduction of reproduction object data, based on return data, the information processing method comprising:

selecting one or more data transmission modes as a return data transmission mode, from a plurality of data transmission modes;

determining a transmission bandwidth percentage for each of the selected one or more data transmission modes according to a demand level of the reproduction object data;

setting the reproduction object data and an address in accordance with transmission bandwidth percentages determined in the determining;

generating, with a processor of the reproduction instruction apparatus, the data reproduction process request packet, which stores designation data for the reproduction object data, as a request statement; and

transmitting the packet generated by the generating, wherein the reproduction object data stored at the node is encoded data at an encoding rate of q/p converted from a number of blocks p of divided data into a number of blocks q by FEC encoding, and the ~~setting~~ ~~judgment data step~~ generating includes setting a probability value β indicating that the node returns data at a return probability β, such that β is greater than p / (q × α × n), where (1) α is a record probability designated by a record instruction apparatus connected to the network, (2) q is [[the]] a number of encoded blocks q, (3) n is a number of network-connected nodes, and (4) p is the number of blocks p.

24-29. (Canceled)

30. (New) The information processing apparatus according to claim 1, wherein the

network interface unit receives a demand level of the reproduction object data.